

REMARKS

This is a full and timely response to the non-final Office Action mailed October 8, 2003 (Paper No. 7). The present amendment amends claims 1, 4 to 8, 13 and 16 to 20 to correct various informalities, cancels claims 9 to 12 and 21 to 24, adds new claims 25 to 38 to preserve all allowable subject matter, and further requests reconsideration of certain findings of fact in connection with the rejection of the claims. Support for these amendments can be found in original claims 5 to 8 and 17 to 20. No new matter has been added. Reexamination and reconsideration in light of the present amendment and the following remarks are respectfully requested.

Election/Restriction Requirement:

In response to the Election of Invention Requirement of August 14, 2003, and further by way of confirmation of the telephone conversation held with Examiner Kim on August 20, 2003, Applicant hereby elects with traverse group I, directed to claims 1 to 8 and 13 to 20.

Objections to the Specification:

The Applicant thanks the examiner for a thorough reading of the specification and has amended the specification in order to correct the formalities referenced by the examiner. Withdrawal of this objection is therefore courteously solicited.

Claim Objections:

The Applicant thanks the examiner for a thorough reading of the claims and, accordingly, has amended the claims in order to correct the various informalities and grammatical errors pointed

out by the examiner. Withdrawal of this objection is therefore respectfully requested.

Claim Rejections- 35 U.S.C. § 112

In the Action, claims 8 and 20 were rejected under 35 U.S.C. § 112, second paragraph, for allegedly failing to particularly point out and distinctly claim the subject matter which is regarded as the invention. The Applicant has, accordingly, amended the claims so as to more clearly recite and claim the subject matter regarded as the invention. Withdrawal of this rejection is therefore courteously solicited.

Allowable Subject Matter:

The Applicant acknowledges and thanks the examiner for the acceptance of claims 5 to 8 and 17 to 20 as allowable subject matter. As suggested by the examiner, the allowable subject matter of original claims 5 to 8 and 17 to 20 has been set forth in independent form in new claims 25 to 28 and 32 to 35, respectively. In addition, the previous limitations present in original claims 2 to 4 and 14 to 16 have been set forth in new claims 29 to 31 and 36 to 38, so as to depend upon the allowable subject of new claims 25 to 28 and 32 to 35, respectively. Accordingly, for at least the reasons set forth by the examiner on page 6 of the Office Action dated October 8, 2003 (Paper No. 7), new claims 25 to 38 are allowable.

Claim Rejections- 35 U.S.C. § 103:

In the action, claims 1-4 and 13-16 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,342,790 B1 to Ferguson et al. ("Ferguson") in view of

U.S. Patent No. 5,332,973 to Brown et al. ("Brown"). This rejection is respectfully traversed.

Independent claims 1 and 13 recite a method of determining a defect-free or defective semiconductor integrated circuit, comprising, *inter alia*, a comparison and determination step for comparing the resemblance between a first and second feature data of first and second integrated circuits ("ICs"), respectively, and determining the first and second ICs as defect-free ICs when the resemblance is high or the first and second ICs as defective ICs when the resemblance is low.

As explained in greater detail on page 24, lines 11-20 of the specification, the above-recited method compares various features or parameters of two semiconductor ICs to determine their resemblance. If the feature data of these two IC closely resemble one another, then both of the ICs are determined to be defect-free. If, however, the feature data of the two ICs do not closely resemble one another, then at least one and possibly both of these ICs are defective. Most importantly, this language demonstrates that the method recited in claims 1 and 13 does not employ the use of a "known defect-free" IC as a reference to be used in comparison with other ICs, as is common in conventional methods. Instead, this method is used to locate and identify a defect-free IC which may later be used as a reference for use in comparing the feature data of subsequent ICs. This is clearly demonstrated by the language of claims 4 and 16, which demonstrate that once a defect-free IC is identified by the method recited in independent claims 1 and 13, this same defect-free IC may be used as a reference IC for use in evaluating the feature data of other ICs in order to determine whether they are defect-free.

In contrast, the invention disclosed in Ferguson fails to disclose, teach or suggest "a method for determining a defect-free semiconductor IC" independent of the use of a "known defect-free" IC, as is demonstrated by the language of claims 1 and 13 of the present invention. In fact, as explained in column 3, lines 28-32 of Ferguson, each measured value of a device-under-testing ("DUT") in the method recited in Ferguson "is then compared to each one of a plurality of pre-measured rise time values representative of operation of a known defect-free copy of the DUT." (emphasis added). In other words, the method disclosed within Ferguson requires and assumes the existence and prior identification of a "known defect-free" IC which is then used as a reference for comparison with subsequent ICs to determine whether or not these subsequent ICs are defective. No disclosure or suggestion is given within Ferguson of a method for locating and identifying this defect-free reference IC, as is recited in claims 1 and 13 of the present invention.

The Ferguson method, accordingly, fails to meet a number of the limitations present in claims 1 and 13. For example, the method disclosed by Ferguson cannot determine both the "first and second ICs as defective ICs when the resemblance is low", as is recited in claims 1 and 13, since one of the ICs used by Ferguson is always "defect-free". The method recited within Ferguson more closely resembles that disclosed within dependent claims 4 and 16 of the present invention and clearly fails to disclose, teach or suggest each of the limitations recited within independent claims 1 and 13.

The Brown reference, in addition, fails to remedy the deficiencies inherent in the Ferguson reference. As

demonstrated in column 2, lines 55-59, the method recited within the Brown reference requires the use of "a reference current" in much the same manner as the method disclosed in Ferguson. Once again, no disclosure or suggestion is given of a method for locating and identifying this defect-free reference IC, as is recited in claims 1 and 13 of the present invention. Thus, the method disclosed within Brown additionally fails to disclose, teach or suggest "a method for determining a defect-free semiconductor IC" independent of the use of a "known defect-free" IC, as is required by claims 1 and 13 of the present invention.

Accordingly, for at least the foregoing reasons, the combination of the applied art fails to disclose, teach or suggest each of the limitations recited within claims 1 and 13 of the present invention. Hence, a *prima facie* rejection thereof has not been established and withdrawal of the rejections is respectfully requested. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Accord. M.P.E.P. § 2143.03.

Moreover, aside from the novel features and distinctions recited therein, claims 3 to 8 and 14 to 20, being dependent either directly or indirectly upon allowable base claims 1 or 13, also represent allowable subject matter and withdrawal of their rejection is therefore courteously solicited.

Conclusion

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013 under Order No. SON-2203 from which the undersigned is authorized to draw.

Respectfully submitted,

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